Heating source localization in a reduced time

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Titre	Heating source localization in a reduced time
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Auteur	Beddiaf, Sara [1], Autrique, Laurent [2], Perez, Laetitia [3], Jolly, Jean-Claude [4]
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Mots-clés	Inverse heat conduction problem [5], optimal observation [6], parameter identification [7], source localization [8]
Résumé en anglais	Inverse three-dimensional heat conduction problems devoted to heating source localization are ill posed. Identification can be performed using an iterative regularization method based on the conjugate gradient algorithm. Such a method is usually implemented off-line, taking into account observations (temperature measurements, for example). However, in a practical context, if the source has to be located as fast as possible (e.g., for diagnosis), the observation horizon has to be reduced. To this end, several configurations are detailed and effects of noisy observations are investigated.
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Liens

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[3] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=1862
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[10] http://dx.doi.org/10.1515/amcs-2016-0043
[11] https://www.degruyter.com/view/j/amcs.2016.26.issue-3/amcs-2016-0043/amcs-2016-0043.xml